



ISSUE VII | 2021

# DAYTON CHAPTER

## CURRENT OFFICERS

### **PRESIDENT**

**Matt Dill**

Matthew.dill@victaulic.com  
Victaulic

### **PRESIDENT-ELECT**

**Jennifer Eller**

jmeller@heapy.com  
Heapy

### **TREASURER**

**Trent Hayden**

thayden@energyoptusa.com  
Energy Optimizers, USA

### **SECRETARY**

**Zak Schultz**

zak.schultz@victaulic.com  
Victaulic

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&



Us on  
Facebook



*From all of us at the Dayton  
Chapter, Have a happy and  
Safe 4th of July!!*

## **FROM THE PRESIDENT**

I'd like thank our outgoing president, Brian Turner, as well as all board members, committee chairs, and all volunteers that contributed to the 2020-2021 year for the Dayton ASHRAE Chapter. I would also like to thank Jeremy Fauber for his many years serving on the Board of Governors. I'm happy to say that our membership and volunteering efforts remain strong through a challenging time.

As the new year begins, I'd like to welcome two new members to the Dayton Chapter Board of Governors.

- Evan Nutt – Chapter Technology Transfer Committee Chair
- Zak Schultz – Chapter Secretary

We also have and new committee Chair:

- Vincent Caudill—Membership

If you are looking to get involved with ASHRAE, please reach out to any of the board members or committee chairs.

I look forward to serving as your president of the 2021-2022 year.

*Matt Dill* – President, Dayton ASHRAE



# FROM THE PRESIDENT

## FUN FACT ABOUT THE FOURTH OF JULY



- \* Americans Will Enjoy 150 Million Hot Dogs During the **4th**.
- \* Only Two Men Signed the Declaration of Independence on **July 4, 1776**.
- \* Bottoms Up With 2x the Rum.
- \* Fireworks = An American Tradition Dating Back to 1777.
- \* The Designer of the 50-Star flag lived in Lancaster, Ohio and was 16 yrs old!! (Robert G. Heft)
- \* Wearing Old Glory Violates The U.S. Flag Code.
- \* America began as 13 British colonies. ...
- \* The Revolutionary War started America's quest for independence. ...
- \* America actually declared independence on **July 2, 1776**. ...
- \* John Adams predicted modern-day **4th of July** festivities.

**On July 4th, the Continental Congress formally adopted the Declaration of Independence, which had been written largely by Jefferson. Though the vote for actual independence took place on July 2nd, from then on the 4th became the day that was celebrated as the birth of American independence**

**\*\*\*\*\*FOR MORE FUN FILLED FACT, CLICK ON PICTURE ABOVE.**

## Upcoming Events

**July 21th**

**Board of Governors  
8:00 AM, Virtual Meeting**

[See Additional  
Events & Volunteer  
Opportunities Here](#)

# CHAPTER HISTORY (1969-1970)

<b>President:</b>	<b>Tom Ferdelman</b>	Ahart & Associates
<b>Vice President:</b>	Glenn Black	Johnson Service
<b>Secretary:</b>	Richard Pearson	Heapy & Associates
<b>Treasurer:</b>	Almar Fraley	Hughes Bectol
<b>BOG:</b>	Norman Pleimann	Monsanto Research
<b>BOG:</b>	James Benner	Helmig Lienesch & Assoc.
<b>BOG:</b>	James Tudas	Trane Co.

Meetings were held at the Carillon Cafeteria.  
Region V Conference was in Evansville Indiana  
139 Local Members

## Committee Chairs

### **MEMBERSHIP**

**Vincent Caudill**

Vcaudill@emofortohio.com  
Environmental Comfort, LLC

### **HISTORY**

**Bryan Schenck**

Brian.Schenck@waibelenergysystems.com  
Waibel Energy Systems

### **COMMUNICATIONS**

**Nathan Lammers**

Nathan.Lammers@waibelenergysystems.com  
Waibel Energy Systems

### **RESEARCH PROMO**

**Tom Mastbaum**

tom.astbaum@tem-associates.com  
TEM Associates, LLC.

### **STUDENT ACTIVITIES**

**Russell Marcks**

Russell.marcks@sinclair.edu  
Sinclair Community College

### **CTTC**

**Evan Nutt**

ENutt@elitaire.com  
Elitaire

### **GOVERNMENT AFFAIRS**

**Paul Hawkins**

Paul.Hawkins@waibelenergysystems.com  
Waibel Energy Systems

**YEA (Chair)**

**Phillip Reid**

PAReid@heapy.com  
Heapy

## Board of Governors

**Rick Pavlak**

Heapy

**Lorraine Kapka**

Sinclair College

**Evan Nutt**

Elitaire

# MEMBERSHIP

## New Members

The Dayton Chapter is happy to welcome its newest members. If you see them please give them a warm welcome!

June

Vincent Caudill



**Do you know a colleague that would benefit from joining ASHRAE?**

You can go to [http://web.ashrae.org/connect\\_a\\_colleague/](http://web.ashrae.org/connect_a_colleague/) and quickly sign up for ASHRAE to send an email to ask them to sign up on your behalf.

## Membership Recognition

We would like to recognize the following members who have been with ASHRAE for the following years! Thank you for all your contributions to the field!

1 Year

Larry Gwin

5 Years

Christian Ellwein

3 Years

Craig Buschur

15 Years

Aaron Powell



## **Membership Promotion Committee**

Looking for a way to get involved with your local ASHRAE chapter and meet new people? The membership promotion committee is looking for volunteers to join the committee. The committee's primary responsibility is to recruit new members and retain existing members. If you are interested in serving please contact Vincent Caudill at [vcaudill@ecomfortohio.com](mailto:vcaudill@ecomfortohio.com) or by calling 614-299-6464

**Membership Application Here**

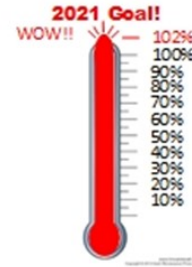
# ASHRAE RP

**We CRUSHED IT AGAIN!** Thanks to the generous donations from our individual and corporate donors the 2020-21 Research Promotion/ Scholarship Campaign was again razing success !! We hit 102% of our Goal for the Year **THANKS TO ALL OF YOU!!**

IMPORTANT: One change that you need to know about: To achieve "Honor Roll" status this year the minimum donation level is \$150. Honor Roll means that your name is published in the ASHRAE Journal, and you receive a Commemorative Gold Coin of a Refrigeration or HVAC Pioneer. We appreciate all donations and a donor your name will appear as a donor in our local newsletter. But if you want to keep your "Coin Collection" going and be "Published," the NEW MINIMUM is \$150.



**2021 Goal = \$ 19,680**  
**YTD = \$ 13,150**  
**To go = \$ 6,530**  
**% to GOAL: 67%**



## Partner Level

Emerson Climate Tech.  
Dayton ASHRAE Chapter



## Silver Level

Waibel Energy

## Honor Roll

Larraine Kapka  
Steve Meier  
Tom Mastbaum  
Evan Nutt  
Trent Hayden  
Nathan Lammers  
Brian Schenck  
Brian Turner  
Kyle Schroeder  
Jennifer Eller  
Sam Tobias  
Sheila Sagerer  
David Crosley  
Russell Marcks  
Jeff Turner

## Bronze Level

Uptime Solutions, Inc.  
Allied Supply

## Honorable Mention

Joseph Ferdelman  
Jeff Turner  
Jeremy Fauber  
Thomas Monnig  
Mike Weisman  
Matt Dill  
Helmig & Lienesch

**Thanks for all your help and support. If you would like to donate NOW simply click this link:**

**[DONATE NOW](#)**

And make your donation to help ASHRAE in its Research Efforts. Thank you so much!!



## **June 23 was International Women in Engineering Day**

International Women in Engineering Day is an international awareness campaign which raises the profile of women in engineering and focuses attention on the career opportunities available to girls. More information on International Women in Engineering Day can be [found here](#).

## **June 26 was World Refrigeration Day**

The coolest day of the year is World Refrigeration Day, celebrated on June 26. The purpose of this day is to raise the profile of the refrigeration, air-conditioning, and heat-pump sector through an international awareness campaign and to focus attention on the significant role that the industry and its technology play in modern life and society. This year's campaign will focus on careers in the refrigeration, air-conditioning, and heat-pump industry. More information on World Refrigeration Day can be [found here](#).

## **G-7 Commits to Climate Action**

Last week, the leaders of the G-7 (Canada, France, Germany, Italy, Japan, the United Kingdom, the United States, and the European Union) met to discuss a variety of topics, including strategies to combat climate change. [The group committed](#) to meeting its past pledges of \$100 billion per year from the developed world to help poorer countries reduce carbon emissions. They also reiterated their goals to limit the global temperature increase to 1.5 degrees Celsius, halve emissions by 2030 and achieve net-zero emissions by 2050. Additionally, they pledged to stop direct government support of international unabated coal projects. The G-7 nations did not commit to stopping or phasing out use of fossil fuels in their own countries. Discussions on climate are expected to continue at the G-20 summit in October.

## **New Jersey Proposes Rules Addressing Emissions of Methane and Halogenated Gases**

The New Jersey State Department of Environmental Protection has proposed new Air Pollution Control rules to address greenhouse gas emissions statewide. The proposed rules include three major components to the requirements for sources to monitor and report their emissions of methane and halogenated gases. Facilities that emit 100 tons or greater per year of methane will be required to report their methane emissions as part of the Emission Statement program. Also, facilities that use 50 pounds or more of high global warming potential (GWP) refrigerants in refrigeration systems will be required to register and report their equipment and use of refrigerants. Finally, natural gas public utilities with local distribution lines in the state will be required to report information regarding their lines, advanced leak detection, and blowdown events. A public hearing will be held regarding this proposal on July 22. Comments are due by August 20. More information can be [found here](#)

## **DOE Releases Request for Information on Electric Vehicle Grid Integration**

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE), and DOE's Office of Electricity (OE), announced a request for information (RFI) seeking feedback from stakeholders on issues related to integrating electric vehicles (EVs) with the grid. This RFI is part of an effort to fulfill provisions in the Energy Act of 2020 which directed DOE to submit to Congress a "Vehicles to Grid Integration Assessment Report." The deadline to submit information is July 23. [Click here](#) to learn more.

## **New Survey of Local Government Leaders Shows Infrastructure Priorities**

A recent poll conducted by Stanford University and Route Fifty of over 400 mayors and other local government leaders across the country indicates their priorities and needs for infrastructure funding, which may include federal funding from a potential infrastructure bill currently under discussion at the federal level. The poll indicated typical high support for funding for roads and bridges, but there was also a significant focus on water and wastewater infrastructure, with 93% and 83% support, respectively. Funding for the electricity grid and broadband also had high levels of support, with 73% each. A majority of local policymakers also favor a bill that would include funding for public buildings, clean energy, affordable housing, and homecare and elderly care. The full results of the poll can be [found here](#).

## **Racing to Find Better Ways to Cool Data Centers**

A growing share of the world's data is consolidated in megacenters with thousands of processors. With each generation of computer chips running faster and hotter, solutions to cool data centers are evolving. As companies race to develop new cooling strategies, such as submerging processors in specially formulated fluids and building data centers under the sea, the industry has maintained a steady focus on liquid-cooling technologies. [Read more](#)

## **Honeywell, Trane Accelerate Transition to Next-Gen Refrigerant**

Honeywell has partnered with Trane Technologies to accelerate the transition to a next-generation, environmentally preferable refrigerant. Trane is set to test Honeywell's Solstice N41 (R-466A)—a nonflammable alternative to R-410A—at three customer locations in different parts of the U.S. as part of a one-year field trial. The trials will test compatibility with new equipment installations and retrofit conversions. [Read more](#)

## **New Building Standard Can Map Out Tornado Threat**

Tornadoes cause more deaths per year than earthquakes and hurricanes combined, but, with the exception of tornado shelters and nuclear power plants, building designs have historically not accounted for tornadoes. The ASCE has released a draft of a proposed building standard that features first-of-a-kind tornado hazard maps meant to guide the design of critical facilities based on their size and geographic location. [Read more](#)



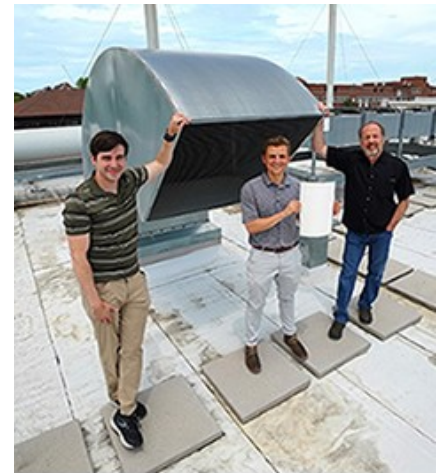
## Researchers Use 3D Model to Measure Effect of Shade on Urban Surface Temperature

Exactly how much do shaded areas like trees or buildings help lower the temperature and reduce the “urban heat island” effect? To find out, Ohio State University researchers created a 3D digital model of a section of Columbus, Ohio, and determined what effects the shade of buildings and trees in the area had on land surface temperatures. [Read more](#)

## Reducing Energy Consumed to Dehumidify Outdoor Air

Using 100% outdoor air in an HVAC system can be costly and energy intensive. Purdue University engineers have proposed a system that integrates specialized membranes into the HVAC system to reduce the energy required to dehumidify the outside air. Large buildings like hospitals could reduce their energy costs up to 66% with such a system, compared to current fully outdoor air systems. [Read more](#)

*Purdue University engineers are developing an energy-efficient system that uses membranes to dehumidify outdoor air before it enters an HVAC system. Credit: Purdue University/Jared Pike*



## Digital Laboratory: Can CFD Models Ignore Thermal Radiation Heat Transfer

*By Mike Koupriyanov, P.Eng., Associate Member ASHRAE*

Computational fluid dynamics (CFD) is a powerful tool for verifying comfort and air quality in the indoor environment and for validating the sizing of mechanical systems serving that environment. This column from June 2020 explores whether CFD models can ignore thermal radiation heat transfer. [Download here](#)

## ASHRAE Releases Standard 62.1 User’s Manual

The recently released Standard 62.1 User’s Manual helps engineers use ASHRAE’s primary ventilation standard, ANSI/ASHRAE Standard 62.1-2019. The User’s Manual explains how to apply the criteria set out by the standard, by providing examples, sample calculations, and best practices for professionals concerned with ventilation and indoor air quality in nonresidential buildings. [Read more](#)

## Register Now for the DOE's 2021 National Energy Codes Conference

The U.S. Department of Energy will be hosting its virtual National Energy Codes Conference July 20-22, 2021. The event will focus on the evolving needs of states and local governments, and the building community at large to meet their energy and climate goals. This free event includes discussion panels and interactive breakout sessions on net-zero energy, decarbonization, workforce development, and increased equity in the built environment. The registration link and schedule can be [found here](#).

**[Dedicated Outdoor Air Systems \(DOASs\)](#)** are becoming the systems of choice in high-performance buildings. The reason is simple; they can control building ventilation, humidity, and building pressure with often best-in-class energy savings. New third-generation variable air volume (VAV) DOAS units complement new and old space heating/cooling systems with operating control simplicity.

This course covers DOAS overview, DOAS types, Heating/Cooling (H/C) units, DOAS Unit (DOASu), and DOASs in high-performance buildings.

By the end of this course you will be able to:

1. Define basic DOAS terminology
2. Recognize older generations of DOASs
3. Explain the basics of DOAS design

Explain why a DOAS is well suited for high-performance buildings

This course is a must for everyone seeking to gain basic knowledge about DOAS technology in the HVAC&R industry! [LEARN MORE.](#)

For the complete eLearning catalog, please visit <https://elearning.ashrae.org/>

### ASHRAE Job Board

**Facilities Maintenance Director** Encompass Health Rehabilitation Hospital of Northern Virginia; Aldie, Va.; Birmingham, Ala.

**Commissioning Group Leader** SMMA; Cambridge, Mass.

**Mechanical Engineer** SmithGroup; San Francisco, Calif.  
**VP of Design Team - World Class Cleanrooms and Critical Environments** Environmental Systems Corporation; Barrie, Ont., Canada

**Mechanical Engineer & Electrical Engineer** Vanderwesten & Rutherford Associates Inc; London, Ont., Canada

**Mechanical Engineer** Architect of the Capitol; Washington, D.C.

**HVAC Mechanical Engineer** SMMA; Cambridge, Mass.

**Refrigeration Engineer** Thermo Fisher Scientific; Asheville, N.C.

**Design Specialist - Mechanical** Turner Construction Company; Nashville, Tenn.

**Building Automation System Engineer (BAS)** W.L. Gore; Elkton, Md.

[View All](#)